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EXAMINER	
MORRISON, THOMAS A	

ART UNIT	PAPER NUMBER
3653	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No.	Applicant(s)	
	10/562,971	NAGAO, HIROYUKI	
	Examiner	Art Unit	
	THOMAS A. MORRISON	3653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 March 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3 and 5-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3 and 5-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1, 3 and 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,725,209 (Takahashi et al.) in view of Japanese Publication No. 9-39467 (hereinafter JP'467).

Regarding claim 1, Figs. 1-6 of Takahashi et al. show a sheet feeder, comprising:

a sheet accommodating section (207) configured to accommodate therein a stack of sheets (P);

a sheet pickup section (including 208) configured to contact the stack of sheets (P) and feed the sheets (P) toward a feed path; and

sheet separator (209) located downstream of the sheet pickup section (including 208), the sheet separator (209) including a feed roller (210) and a reverse roller (201),

wherein the reverse roller (201) includes a sponge member (including 203 and 204) having an outer periphery formed with a coating layer (205) having a surface smoothed to such an extent as to have a gloss. The Takahashi et al. patent discloses all of the limitations of claim 1, except for the coating layer (205) having a mean surface roughness of 0.09 < or = Ra < or = 0.11.

JP'467 discloses that it is well known to provide an outer surface coating (2) onto a base member (1), in which the outer surface coating (2) has a surface roughness of 0.09 < or = Ra < or = 0.11, for the purpose of reducing slip via addition of the outer coating. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the sponge member (including 203 and 204) of the reverse roller (201) of Takahashi et al. with an outer coating having a surface roughness of 0.09 < or = Ra < or = 0.11, for the purpose of reducing slip of the reverse roller (201) of Takahashi et al., as taught by the English Abstract of JP'467.

Regarding claim 3, the English Abstract of JP'467 discloses that the coating layer comprises urethane rubber.

Regarding claim 5, Figs. 1-6 of Takahashi et al. show that the sheet pickup section (including 208) comprises a roller (208) member having a hollow portion therein. The hollow portion of roller 208 is the hole in roller 208 into which the unnumbered shaft is installed.

Regarding claim 6, Figs. 1-6 of Takahashi et al. show an image reading apparatus (Fig. 6), comprising:

a sheet feeder as recited in claim 1 (see rejection of claim 1 above for the elements of the sheet feeder of claim 1); and

an image reading section (including 5 and 6) configured to read an image formed on each of the sheets fed by the sheet feeder. More specifically, the sheet feeder of claim 1 feeds a sheet from one of the lower cassettes (19A and 19B) in Fig. 6 up to a location where an image is formed on such sheet (near 9 in Fig. 6). This fed sheet is an

"original" with an image formed thereon. Moreover, element 3 is configured to convey such original to the image reading section (including 5 and 6) to read such original. In other words, Fig. 6 shows an image reading section (including 5 and 6) configured to read an image formed on each of the sheets fed by the sheet feeder, as claimed.

Regarding claim 7, Figs. 1-6 of Takahashi et al. show an image forming apparatus (Fig. 6), comprising:

an image reading apparatus as recited in claim 6 (see rejection of claim 6 above for the elements of claim 6); and

an image forming section (including 7) configured to form an image based on image data read by the image reading apparatus.

Regarding claim 8, Figs. 1-6 of Takehashi et al. show an image forming apparatus (Fig. 6), comprising:

a sheet feeder as recited in claim 1 (see rejection of claim 1 above for the elements of claim 1);

an image reading section (including 5 and 6) configured to read an image formed on each of the sheets fed by the sheet feeder; and

an image forming section (including 7) configured to form an image based on image data read by the image reading section (including 5 and 6).

2. Claims 1 and 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,725,209 (Takahashi et al.) in view of U.S. Patent No. 6,030,328 (Watanabe et al.)

Regarding claim 1, Figs. 1-6 of Takahashi et al. show a sheet feeder, comprising:

a sheet accommodating section (207) configured to accommodate therein a stack of sheets (P);

a sheet pickup section (208) configured to contact the stack of sheets (P) and feed the sheets (P) toward a feed path; and

sheet separator (209) located downstream of the sheet pickup section (208), the sheet separator (209) including a feed roller (210) and a reverse roller (201),

wherein the reverse roller (201) includes a sponge member (including 203 and 204) having an outer periphery formed with a coating layer (205) having a surface smoothed to such an extent as to have a gloss. The Takahashi et al. patent discloses that the coating layer (205) is a resin material, but Takahashi does not explicitly discloses that such coating layer (205) has a mean surface roughness of 0.09 < or = Ra < or = 0.11.

The Watanabe et al. patent discloses that it is well known to provide a multi-layer roller (Figs. 1-2) with an outermost coating layer (3) having a mean surface roughness of 0.09 < or = Ra < or = 0.11. See e.g., Figs. 1-2 and column 5, lines 60-65. Column 8, lines 50-54 of Watanabe et al. explain that such resin coating layer (3) offers superior surface smoothness, high surface hardness, and superior compression strength. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the reverse roller (201) of Takahashi et al. with an outermost coating layer, as taught by Watanabe et al. (i.e., a coating layer with a mean surface roughness of 0.09 < or = Ra < or = 0.11), for the purpose of forming a roller with superior surface smoothness, high surface hardness, and superior compression strength, as taught by

Watanabe et al. Thus, all of the limitations of claim 1 are met by this combination of references.

Regarding claim 5, Figs. 1-6 of Takahashi et al. show that the sheet pickup section (including 208) comprises a roller (208) member having a hollow portion therein. The hollow portion of roller 208 is the hole in roller 208 into which the unnumbered shaft is installed.

Regarding claim 6, Figs. 1-6 of Takahashi et al. show an image reading apparatus (Fig. 6), comprising:

a sheet feeder as recited in claim 1 (see rejection of claim 1 above for the elements of the sheet feeder of claim 1); and

an image reading section (including 5 and 6) configured to read an image formed on each of the sheets fed by the sheet feeder. More specifically, the sheet feeder of claim 1 feeds a sheet from one of the lower cassettes (19A and 19B) in Fig. 6 up to a location where an image is formed on such sheet (near 9 in Fig. 6). This fed sheet is an "original" with an image formed thereon. Moreover, element 3 is configured to convey such original to the image reading section (including 5 and 6) to read such original. In other words, Fig. 6 shows an image reading section (including 5 and 6) configured to read an image formed on each of the sheets fed by the sheet feeder, as claimed.

Regarding claim 7, Figs. 1-6 of Takahashi et al. show an image forming apparatus (Fig. 6), comprising:

an image reading apparatus as recited in claim 6 (see rejection of claim 6 above for the elements of claim 6); and

an image forming section (including 7) configured to form an image based on image data read by the image reading apparatus.

Regarding claim 8, Figs. 1-6 of Takehashi et al. show an image forming apparatus (Fig. 6), comprising:

a sheet feeder as recited in claim 1 (see rejection of claim 1 above for the elements of claim 1);

an image reading section (including 5 and 6) configured to read an image formed on each of the sheets fed by the sheet feeder; and

an image forming section (including 7) configured to form an image based on image data read by the image reading section (including 5 and 6).

3. Claims 1 and 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,725,209 (Takahashi et al.) in view of U.S. Patent No. 5,722,026 (Goto et al.).

Regarding claim 1, Figs. 1-6 of Takahashi et al. show a sheet feeder, comprising:

a sheet accommodating section (207) configured to accommodate therein a stack of sheets (P);

a sheet pickup section (208) configured to contact the stack of sheets (P) and feed the sheets (P) toward a feed path; and

sheet separator (209) located downstream of the sheet pickup section (208), the sheet separator (209) including a feed roller (210) and a reverse roller (201),

wherein the reverse roller (201) includes a sponge member (including 203 and 204) having an outer periphery formed with a coating layer (205) having a surface

smoothed to such an extent as to have a gloss. The Takahashi et al. patent discloses that the coating layer (205) is a rubber material, but Takahashi does not explicitly disclose that such coating layer (205) has a mean surface roughness of 0.09 < or = Ra < or = 0.11. See e.g., column 3, lines 32-37 of Takahashi et al.

The Goto et al. patent discloses that it is well known to provide a multi-layer roller (Fig. 2) with an outermost rubber coating layer that has a mean surface roughness of 0.09 < or = Ra < or = 0.11. See e.g., Fig. 2 and column 7, line 57 to column 8, line 15. Column 8, lines 4-7 of Goto et al. explain that such rubber coating layer facilitates a higher operating speed of an image forming apparatus. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the reverse roller (201) of Takahashi et al. with an outermost coating layer, as taught by Goto et al. (i.e., a coating layer with a mean surface roughness of 0.09 < or = Ra < or = 0.11), for the purpose of forming a roller that can operate at higher speeds, as taught by Goto et al. Thus, all of the limitations of claim 1 are met by this combination of references.

Regarding claim 5, Figs. 1-6 of Takahashi et al. show that the sheet pickup section (including 208) comprises a roller (208) member having a hollow portion therein. The hollow portion of roller 208 is the hole in roller 208 into which the unnumbered shaft is installed.

Regarding claim 6, Figs. 1-6 of Takahashi et al. show an image reading apparatus (Fig. 6), comprising:

a sheet feeder as recited in claim 1 (see rejection of claim 1 above for the elements of the sheet feeder of claim 1); and

an image reading section (including 5 and 6) configured to read an image formed on each of the sheets fed by the sheet feeder. More specifically, the sheet feeder of claim 1 feeds a sheet from one of the lower cassettes (19A and 19B) in Fig. 6 up to a location where an image is formed on such sheet (near 9 in Fig. 6). This fed sheet is an "original" with an image formed thereon. Moreover, element 3 is configured to convey such original to the image reading section (including 5 and 6) to read such original. In other words, Fig. 6 shows an image reading section (including 5 and 6) configured to read an image formed on each of the sheets fed by the sheet feeder, as claimed.

Regarding claim 7, Figs. 1-6 of Takahashi et al. show an image forming apparatus (Fig. 6), comprising:

an image reading apparatus as recited in claim 6 (see rejection of claim 6 above for the elements of claim 6); and

an image forming section (including 7) configured to form an image based on image data read by the image reading apparatus.

Regarding claim 8, Figs. 1-6 of Takehashi et al. show an image forming apparatus (Fig. 6), comprising:

a sheet feeder as recited in claim 1 (see rejection of claim 1 above for the elements of claim 1);

an image reading section (including 5 and 6) configured to read an image formed on each of the sheets fed by the sheet feeder; and

an image forming section (including 7) configured to form an image based on image data read by the image reading section (including 5 and 6).

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,725,209 (Takahashi et al.) in view of JP'467 or, in the alternative, under 35 U.S.C. 103(a) as obvious over Takahashi et al. in view of JP'467, and further in view of U.S. Patent No. 4,287,649 (Kohler).

Regarding claim 2, Takahashi et al. in view of JP'467 discloses the coating layer that meets the limitation of claim 2. See MPEP 2113. More specifically, MPEP 2113 states that, "The patentability of a product does not depend on its method of production." Thus, the coating layer of Takahashi et al. in view of JP'467 meets the limitations of claim 2. Alternatively, it would be obvious to one of ordinary skill in the art to form the coating layer by dipping the sponge member (including 203 and 204) of Takahashi et al. into a coating liquid, for the purpose of effectively controlling the thickness of such coating layer, as taught by Fig. 9 and column 3, lines 6-12 of the Kohler patent.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,725,209 (Takahashi et al.) in view of U.S. Patent No. 6,030,328 (Watanabe et al.) or, in the alternative, under 35 U.S.C. 103(a) as obvious over Takahashi et al. in view of Watanabe et al., and further in view of U.S. Patent No. 4,287,649 (Kohler).

Regarding claim 2, Takahashi et al. in view of Watanabe et al. discloses the coating layer that meets the limitation of claim 2. See MPEP 2113. More specifically, MPEP 2113 states that, "The patentability of a product does not depend on its method of production." Thus, the coating layer of Takahashi et al. in view of Watanabe et al.

meets the limitations of claim 2. Alternatively, it would be obvious to one of ordinary skill in the art to form the coating layer by dipping the sponge member (including 203 and 204) of Takahashi et al. into a coating liquid, for the purpose of effectively controlling the thickness of such coating layer, as taught by Fig. 9 and column 3, lines 6-12 of the Kohler patent.

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,725,209 (Takahashi et al.) in view of U.S. Patent No. 5,722,026 (Goto et al.) or, in the alternative, under 35 U.S.C. 103(a) as obvious over Takahashi et al. in view of Goto et al., and further in view of U.S. Patent No. 4,287,649 (Kohler).

Regarding claim 2, Takahashi et al. in view of Goto et al. discloses the coating layer that meets the limitation of claim 2. See MPEP 2113. More specifically, MPEP 2113 states that, "The patentability of a product does not depend on its method of production." Thus, the coating layer of Takahashi et al. in view of Goto et al. meets the limitations of claim 2. Alternatively, it would be obvious to one of ordinary skill in the art to form the coating layer by dipping the sponge member (including 203 and 204) of Takahashi et al. into a coating liquid, for the purpose of effectively controlling the thickness of such coating layer, as taught by Fig. 9 and column 3, lines 6-12 of the Kohler patent.

Response to Arguments

7. Applicant's arguments filed 3/17/2008 have been fully considered but they are not persuasive.

Applicant argues

> The Examiner states that Takahashi shows everything but the specific mean surface roughness and that JP'467 teaches a surface roughness of 0.09 Ra 0.11. To the contrary, Takahashi does not show the reverse roller sponge member coating layer surface smoothed "to have a gloss" as claimed. Takahashi merely shows basic roller construction. Takahashi prefers the coating resin material to be "worked to form indentations 206" rather than a gloss. To establish prima facie obviousness of a claimed invention, all the claim limitations must be suggested or taught by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1970). All words in a claim must be considered in judging the patentability of that claim against the prior art. In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). The claimed reverse roller sponge member coating layer surface smoothed "to have a gloss" is not shown by the reference and has not been properly addressed in the rejection.

In response, the dictionary defines the term "gloss" as "1. A surface shininess or luster". See Webster's II New Riverside University Dictionary (1984) at page 535. Applicant has not defined any specific degree of gloss that the roller has in claim 1 of the instant application. All materials have a certain amount of "gloss" (surface shininess). Thus, it is the examiner's position that the outer layer of the roller of Takahashi has a certain amount of "gloss" and can be considered to be "smoothed to such an extent as to have a gloss", as set forth in claim 1.

Next, applicant argues

> Moreover, JP'467 is totally unrelated to a surface coating on a reverse roller sponge member and only discloses that the embossed patterns on a writing utensil, cosmetic utensil or electronic input pen have a roughness of 0.01-3 [micrometers]. It is not clear from the rejection as to what the connection would be between a writing utensil and a sheet feed reverse roller. These references cannot be combined, and even if they were combined, they would not teach the embodiment of claims 1, 3 and 5-8. The range of roughness of 0.01-3 [micrometers] is about 150 times wider than the claimed acceptable range and therefore does not meet the standard for obviousness established by *MPEP [section] 2144.05 Obviousness of Ranges*. Here, it is submitted that only Applicant has recognized that this particular range produces the desired outcome in this particular environment. Therefore, at least because Takahashi and

> JP'467 fail to show or suggest all of the features of claim 1, it is submitted that claim 1 is patentable over these references, and dependent claims 3 and 5-8 are also patentable at least for the same reasons as claim 1.

In response, claim 1 of the instant application recites 0.09 < or = Ra < or = 0.11. Any single surface roughness value that falls within this range meets the surface roughness limitation set forth in claim 1 of the instant application. JP'467 teaches the advantages of adding a surface coating made from urethane onto the outside of a cylindrical element to prevent slippage. Such outer coating has a surface roughness of 0.1 to 3 micrometers. A surface roughness of 0.1 micrometers, as taught by the English abstract of JP'467, meets the surface roughness limitation of claim 1. It is the examiner's position that one of ordinary skill in the art would understand from the teachings of the JP'467 in combination with the Takahashi et al. reference that it is obvious to provide the roller of Takahashi et al. with a surface coating having a surface roughness in the range of 0.1 to 3 micrometers for purpose of preventing slippage of the roller. JP'467 clearly teaches that slippage can be prevented by adding an outer coating made from urethane with a surface roughness of 0.1 micrometers. Thus, all of the limitations of claim 1 are met by the cited combination of references.

Then, applicant argues

> The rejection based on Takahashi and Watanabe suffers from the same deficiency of Takahashi noted above and because Watanabe is for a high nip pressure calendering roll having a surface roughness of less than 0.51 [micrometers], preferably less than 0.2 [micrometers] and desirably less than 0.11 [micrometers]. These references cannot be combined, and even if they were combined, they would not teach the embodiment of claims 1 and 5-8. The claimed reverse roller sponge member coating layer surface smoothed "to have a gloss" is not shown by the reference and has not been properly addressed in the rejection.

As mentioned above, the dictionary defines the term "gloss" as "1. A surface shininess or luster". See Webster's II New Riverside University Dictionary (1984) at page 535. Applicant has not defined any specific degree of gloss that the roller has in claim 1 of the instant application. All materials have a certain amount of "gloss" (surface shininess). Thus, it is the examiner's position that the outer layer of the roller of Takahashi has a certain amount of "gloss" and can be considered to be "smoothed to such an extent as to have a gloss", as set forth in claim 1.

Moreover, claim 1 of the instant application recites 0.09 < or = Ra < or = 0.11. Any single surface roughness value that falls within this range meets the surface roughness limitation set forth in claim 1 of the instant application. Watanabe teaches the advantages of using a roller having an outer surface with a surface roughness that is desirably less than 0.11 micrometers. A surface roughness less than 0.11 micrometers, as taught by Watanabe, meets the surface roughness limitation of claim 1.

In addition, applicant argues

> Moreover, Watanabe is for a high nip pressure calendering roll having a surface roughness of less than 0.5 [micrometers], preferably less than 0.2 [micrometers] and desirably less than 0.11 [micrometers]. Watanabe wants the roll surface to be as smooth as possible because it is used to smooth the metal oxide layer on recording tape. Once again, Watanabe does not set a lower limit for the surface smoothness and the wide range of acceptable roughness is so far in excess of the claimed acceptable range as to not meet the standard for obviousness discussed above. Here, it is submitted that only Applicant has recognized that this particular range produces the desired outcome in this particular environment. Therefore, at least because Takahashi and Watanabe fail to show or suggest all of the features of claim 1, it is submitted that claim 1 is patentable over these references, and dependent claims 5-8 are also patentable at least for the same reasons as claim 1.

In response, claim 1 of the instant application recites 0.09 < or = Ra < or = 0.11. Any single surface roughness value that falls within this range meets the surface roughness limitation set forth in claim 1 of the instant application. Watanabe teaches the advantages of using a roller having an outer surface with a surface roughness that is desirably less than 0.11 micrometers. A surface roughness less than 0.11 micrometers, as taught by Watanabe, meets the surface roughness limitation of claim 1.

Next, applicant argues

> The rejection based on Takahashi and Goto suffers from the same deficiency of Takahashi noted above and because Goto is for a toner heat fixing roller having a surface roughness Ra in a range of 0.1 to 1 [micrometer]. Heat fixing rollers operate under high pressure and high temperature to fix a recording material to a sheet substrate, not to gently return a misfed sheet to a pickup section. Like the other proposed combinations discussed above, the Examiner has laid out no factual analysis that establishes why one working in the art of sheet pickup sections would turn to the art of fixing printing material such as ink or toner under high heat and pressure for solutions to problems. These references cannot be combined, and even if they were combined they would not teach the embodiment of claims 1 and 5-8. The claimed reverse roller sponge member coating layer surface smoothed "to have a gloss" is not shown by the reference and has not been properly addressed in the rejection. Therefore, at least because Takahashi and Goto fail to show or suggest all of the features of claim 1, it is submitted that claim 1 is patentable over these references, and dependent claims 5-8 are also patentable at least for the same reasons as claim 1.

In response, claim 1 of the instant application recites 0.09 < or = Ra < or = 0.11. Any single surface roughness value that falls within this range meets the surface roughness limitation set forth in claim 1 of the instant application. Goto teaches the advantages of using a roller having an outer surface with a surface roughness that is in a range of 0.1 to 1 micrometer. A surface roughness of 0.1 micrometers, as taught by Goto, meets the surface roughness limitation of claim 1.

The examiner has also provided a motivation for using a rubber outer coating as taught by Goto. Namely, column 8, lines 4-7 of Goto et al. explain that such rubber coating layer facilitates a higher operating speed of an image forming apparatus. As such, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the reverse roller (201) of Takahashi et al. with an outermost coating layer, as taught by Goto et al. (i.e., a coating layer with a mean surface roughness of 0.09 < or = Ra < or = 0.11), for the purpose of forming a roller that can operate at higher speeds, as taught by Goto et al. Thus, all of the limitations of claim 1 are met by this combination of references.

Because both of these references teach rollers for transporting sheet material, providing the roller of Takahashi et al. with an outer layer as taught by Goto, would have been obvious to one skilled in the art to achieve the predictable result of transporting sheet material at higher speeds. Thus, all of the limitations of claim 1 are met by this combination of references.

In addition, applicant argues

> With respect to the rejections of dependent claim 2, the Examiner optionally includes Kohler to the combination. Kohler relates to forming a rough surface to have a tread for gripping by means of coating. Kohler teaches away from having a gloss surface and teaches away from having a mean surface roughness as claimed. Therefore Kohler cannot remedy the defects of the combinations noted above.

In response, the dictionary defines the term "gloss" as "1. A surface shininess or luster". See Webster's II New Riverside University Dictionary (1984) at page 535. Applicant has not defined any specific degree of gloss that the roller has in claims 1 or 2

of the instant application. All materials have a certain amount of "gloss" (surface shininess). Thus, it is the examiner's position that the outer layer of the roller of Takahashi, the outer layer of the roller of JP'467, the outer layer of the roller of Watanabe, the outer layer of the roller of Goto, and the outer layer of the roller of Kohler each has a certain amount of "gloss" and can be considered to be "smoothed to such an extent as to have a gloss", as set forth in the claims of the instant application. As such, Kohler does not teach away from the "gloss" recitations in the claims of the instant application. Kohler is not relied upon for the claimed surface roughness. Rather, Kohler is relied upon to show that it is obvious to form a coating layer on the outside of a roller by dipping such roller into a coating liquid for the purpose of effectively controlling the thickness of such coating layer. In other words, Kohler is relied upon to show a method of manufacture of a roller.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas A. Morrison whose telephone number is (571) 272-7221. The examiner can normally be reached on M-F, 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Mackey can be reached on (571) 272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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